California Weather-Hydro Conditions during October 2007

At the end of Water Year 2007 (October 1, 2006 through September 30, 2007) California statewide hydrologic conditions were as follows: precipitation, 65% of average to date; runoff, 50% of average to date; and reservoir storage, 80% of average for the date. On April 1, the statewide snow pack was about 40% of the April 1 average (the usual date of maximum accumulation). This is the smallest snowpack for April 1 since 1988 when the statewide snowpack was at 30 percent of the April 1 average. On May 1, 2007, the statewide snowpack was only about 25% of normal due to below-normal snowfall and above-normal temperatures during April. Usually, snowmelt continues well into June, but by June 1 of Water Year 2007, the statewide snowpack was essentially gone.

A series of troughs during October, the first month of Water Year 2008, kept temperatures throughout the State generally below normal, despite a period of strong, warm Santa Ana Winds in Southern California. Precipitation during October was generally above normal in Northern California, with most rainfall falling in a two-day period from October 18-19. This storm brought heavy rains over far Northwestern California and the first monitor stage of the new water year at Dr. Fine Bridge on the Smith River.

In general, seasonal precipitation during Water Year 2007 was significantly below average, especially in Southern California, where record dryness occurred at some locations. On September 30, the Northern Sierra 8-Station Index had a seasonal total of 37.3", which is about 75% of the average for an entire Water Year (50.0"). During Water Year 2007, the Northern Sierra 8-Station Index had the sixth driest January and March on record. In contrast, the other large precipitation months of December and February were above normal at 101% and 170% of average, respectively. The Water Year 2007 October through September seasonal total of 37.3" is the 24th driest year out of 88 years of record. In both Northern and Southern California, this year's severe fire season began early because of the dryness.

As of June 5, 2007, the date of the last forecast for Water Year 2007, the projected median April-July unimpaired snowmelt runoff for the State's major water supply basins ranged from 56% (Shasta Lake Inflow) to 22% (Tule River).

Selected Cities Precipitation Accumulation as of 11/01/2007 (National Weather Service Water Year: July through June)					
	Jul 1 to Date 2007 - 2008 (in inches)	% Avg	Jul 1 to Date 2006 - 2007 (in inches)	% Avg	% Avg Jul 1 to Jun 30 2007 - 2008
Eureka	6.55	181	0.71	20	17
Redding	4.28	152	0.26	9	12
Sacramento	1.12	85	0.16	12	6
San Francisco	2.13	166	0.33	26	11
Fresno	0.24	27	0.08	9	2
Bakersfield	0.41	79	0.29	56	6
Los Angeles	1.47	181	0.34	42	9
San Diego	0.42	57	0.81	109	3

Key Reservoir Storage (1,000 AF) as of 11/01/2007								
Reservoir	River	Storage	Avg Storage	% Average	Capacity	% Capacity	Flood Control Encroachment	Total Space Available
Trinity Lake	Trinity	1,429	1,615	88	2,448	58	---	1,019
Shasta Lake	Sacramento	1,801	2,756	65	4,552	40	-2,111	2,751
Lake Oroville	Feather	1,455	2,166	67	3,538	41	-1,708	2,083
New Bullards Bar Res	Yuba	587	534	110	966	61	-213	379
Folsom Lake	American	285	498	57	977	29	-447	692
New Melones Res	Stanislaus	1,427	1,303	110	2,420	59	-553	993
Don Pedro Res	Tuolumne	1,240	1,298	96	2,030	61	-450	790
Lake McClure	Merced	303	449	67	1,025	30	-377	722
Millerton Lake	San Joaquin	172	189	91	520	33	-264	348
Pine Flat Res	Kings	190	349	54	1,000	19	-684	810
Isabella	Kern	109	159	68	568	19	-65	459
San Luis Res	(Offstream)	808	1,101	73	2,039	40	---	1,231

The latest National Weather Service Climate Prediction Center (CPC) 90-Day long-range seasonal weather outlook (for November through January), issued October 18, suggests above average precipitation for Northern California (including most of the Pacific Northwest) and below average for Southern California. The central part of the State is expected to have average rainfall. Temperatures are expected to be above average for much of southeastern California and near average for the rest of the State. The latest CPC long-range weather outlook for November, issued October 31, suggests above average temperatures for all of California. Below average precipitation is expected for all California. Both the one- and three-month forecasts suggest that precipitation will be below average for the American Southwest.

The pattern of this year's long-range forecasts are influenced by the continuing development of weak to moderate La Nina conditions (cooler than average sea-surface temperatures) across the tropical Pacific. Current conditions suggest that La Nina conditions may continue to strengthen into early next year and then fade during the latter part of winter. La Nina events influence the position and strength of the jet stream over the Pacific Ocean, which in turn affects the winter precipitation and temperature patterns across the United States and other locations in the world. La Nina conditions can favor a wetter than average Pacific Northwest and a drier than average American Southwest. California sits in the transition zone with the northern mountains of the State potentially wetter than average, and the Central Valley and Southern California potentially drier than average. In addition, during La Nina years, weather in Northern California can be highly variable, with both wet and dry scenarios possible. Southern California has a more consistent tendency toward dryness.